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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/683,592	10/10/2003	Roger Proksch	14083-002002	1027

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EXAMINER	
PATIDAR, JAY M	

ART UNIT	PAPER NUMBER
2862	

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/683,592	PROKSCH ET AL.	
	Examiner	Art Unit	
	Jay M. Patidar	2862	

-- The MAILING DATE of this communication appears on th cover she t with th correspond nce address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 October 2003*.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *4-60* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *4-60* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 4-22,50, drawn to a position sensor comprising a first coil form constructed of a non ferromagnetic material, a first moving coil, a stationary coil form constructed of a non ferromagnetic material, a second coil, classified in class 324, subclass 207.17.

II. Claims 23-26, drawn to a method comprising configuring a first coil and a second coil to minimize Barkhausen noise within the first and second coils, classified in class 324, subclass 207.12.

III. Claims 27-39, drawn to a position sensor comprising a primary coil form constructed of a non ferromagnetic material, a first moving coil, a stationary coil form constructed of a non ferromagnetic material, a first and second stationary coils and an electronics portion, classified in class 324, subclass 207.18.

IV. Claims 40-49, drawn to a method comprising using a force detecting element to move a moving coil part linearly which moving coil part is formed without ferromagnetic material to indicate a resolution in range of microns or less, classified in class 324, subclass 207.12.

V. Claim 51, drawn to an apparatus comprising a moving coil part, a stationary coil part with coil form being non ferromagnetic material

and a shell material surrounding coil part, classified in class 324, subclass 207.17.

VI. Claim 52, drawn to an apparatus comprising a primary non ferromagnetic coil assembly, first and second stationary coil assemblies, an electronic portion including synchronizing element, classified in class 324, subclass 207.18.

VII. Claim 53, drawn to a method for driving a primary coil, classified in class 361, subclass 139+.

VIII. Claim 54, drawn to a method comprising using a molecular force probe to cause deflection of a cantilever and using movements of the cantilever to drive a plurality of coils, classified in class 73, subclass 862.451.

IX. Claim 55, drawn to a method comprising using a surface profiling instrument to cause deflection and using movements to drive a plurality of coils, classified in class 73, subclass 12.01.

X. Claim 56, drawn to a method comprising using an atomic force microscope to cause deflection and using movements to drive a plurality of coils, classified in class 73, subclass 12.01.

XI. Claims 57-60, drawn to a system comprising an atomic microscope having an optical detection system, classified in class 250, subclass 306.

2. Each of the inventions is directed to a different inventive feature, not required by the others. Thus, the invention of Group I is directed to a position determination sensor comprising a first coil form constructed of a non ferromagnetic material, a first moving coil, a stationary coil form constructed of a non ferromagnetic material and a second coil, a feature not required by the inventions of Groups II-XI; the invention of Group II is directed to a method comprising configuring a first coil and a second coil to minimize Barkhausen noise, a feature not required by the inventions of Groups I,III-XI; the invention of Group III is directed to a position sensor comprising coil forms constructed of a non ferromagnetic material, a feature not required by the inventions of Groups I-II,IV-XI; the invention of Group IV is directed to a method comprising using a force detecting element, a feature not required by the inventions of Groups I-III,V-XI; the invention of Group V is directed to a shell material surrounding the coil part, a feature not required by the inventions of Groups I-IV,VI-XI; the invention of Group VI is directed to an apparatus with an electronic portion including synchronizing element, a feature not required by the inventions of Groups I-V,Vii-XI; the invention of Group VII is directed to a method of driving a coil, a feature not required by the inventions of Groups I-VI,VIII-XI; the invention of Group VIII is directed to a method comprising using a molecular force probe to cause deflection of a cantilever and using movements of the cantilever to drive a

plurality of coils, a feature not required by the inventions of Groups I-VII,IX-XI; the invention of Group IX is directed to a surface profiling instrument, a feature not required by the inventions of Groups I-VIII,X-XI; the invention of Group X is directed to a method comprising using an atomic force microscope, a feature not required by the inventions of Groups I-IX,XI; the invention of Group XI is directed to a system comprising an atomic microscope having an optical detection system, a feature not required by the inventions of Groups I-X.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. Because these inventions are distinct for the reasons given above and the search required for one Group is not required for other Group, restriction for examination purposes as indicated is proper.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

6. A telephone call was made to Mr. Scott C. Harris on January 11, 2005 to request an oral election to the above restriction requirement, but did not result in an election being made.

7. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jay M. Patidar whose telephone number is 571-272-2265. The examiner can normally be reached on M-Thur 8:00-6:30.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jay M. Patidar
Primary Examiner
Art Unit 2862
January 11, 2005